

APPENDIXES

APPENDIX I. DETAILED LONG-RANGE COST ESTIMATES

The estimates presented in the previous report of the Board of Trustees related to the program as it was (and essentially still is) after the 1954 amendments. Since the date of the last report, the earnings assumptions have been revised to reflect the experience since 1951-52, which showed a substantial increase in average annual earnings per worker under the system. Thus the only difference in the assumptions underlying the cost estimates in last year's report and this one is in respect to covered earnings.

At various times in the past the report of the Board of Trustees has contained estimates based on both high employment assumptions (somewhat below conditions prevailing currently) and low employment assumptions (roughly midway between the high employment assumptions and the level prevailing just before the start of World War II). Since the low employment assumptions have been so much below actual experience, no estimates have been developed on this basis since 1952. The following discussion will relate only to cost estimates based on high employment assumptions. The reader may consult previous reports or Actuarial Study No. 36 of the Social Security Administration to see the cost effect of lower employment assumptions.

The estimates are based on level earnings assumptions (slightly below the present levels). If in the future earnings levels should be considerably above that which now prevails, and if at the same time the benefits for those on the roll are adjusted upward so that annual costs in relation to payroll remain the same, then the resulting increased dollar outgo will offset the increased dollar income. This is an important reason for considering costs relative to payroll rather than in dollars.

The cost estimates have not taken into account the possibility of a rise in earnings levels, although such rises have characterized the past history of this country. If such an assumption were used in the cost estimates, along with the unlikely assumption that the benefit formula nevertheless would not be changed, the cost relative to payroll would, of course, be lower. If benefits are adjusted continuously and without any timelag to keep pace with rising earnings trends, the year-by-year costs as a percentage of payroll would be unaffected. However, such an adjustment would raise the level-premium cost, since under these circumstances the relative value of the interest earnings on the trust fund would diminish with the passage of time.

A useful concept of long-range cost is the level-premium contribution rate required to support the system in perpetuity obtained by discounting future benefits and assumed contributions at compound interest and assuming that benefit payments and taxable payrolls remain level after the year 2050 (actually the relationship between

benefits and payroll is assumed virtually constant after about 2020). If such a level rate were adopted, relatively large accumulations in the trust fund would result, and in consequence also sizable eventual income from interest. Even though such a method of financing is not followed, this concept nevertheless provides a useful measure of long-range costs which takes into account the heavy deferred load.

There are a number of basic factors, both demographic and economic, which must be continually reexamined in estimating the costs of this program.

(a) *Population growth.*—The future trend of the population depends on the size and age distribution of the existing population, on future births and immigration, and on future deaths and emigration. In making use of the extensive census and vital statistics data available, one must be aware of the various types of error and bias (fully recognized by the Bureau of the Census and the National Office of Vital Statistics) which are present. For instance, the 1940 census showed about 600,000 more persons aged 65 and over than had been expected on the basis of the 1930 census and the deaths and migration between the 2 censuses. The 1950 census shows about 700,000 more persons age 65 and over than are indicated by a similar projection of the 1940 census. Thus, the 1950 census is necessarily used as the base for the cost estimates, in the absence of any adequate basis for adjustment. In both cases, however, there is no reliable indication as to what part of the discrepancy should be attributed to each of the two censuses involved (or to the death or migration data).

Crude birth rates declined for many years until about 1935, due in part to the increasing proportion of the female population past the childbearing ages, and in part to a decline in age-specific birth rates. However, since 1937 the long decline of the birth rate has been reversed. During the war years high birth rates were reported, the wartime peak being reached in 1943. Although there was some decline in 1944-45, the birth rate remained higher than at any time during the thirties, despite the fact that the war removed many potential fathers from the country. Beginning in 1946, a very rapid rise occurred, and the birth rate for the 12-month period ending June 1947 was higher than at any time since the beginning of World War I. The peak was followed by some decline and a subsequent rise in 1951-54, which did not quite reach the 1947 level.

The increase in birthrates in recent years seems to be concentrated largely in the rates for first, second, and third births to a given mother. The increase in first births tends to increase the proportion of the insured population having dependents eligible for immediate monthly benefits, as well as the number of such dependents. As a result, the cost of survivor benefits is increased, even if there is a decline in the number of large families. The latter factor has only a limited effect upon benefits because aggregate benefits for a family are not increased for children in excess of three if the mother is also receiving benefits.

Net immigration had been very heavy prior to 1915 and moderate in the early twenties, but was quite negligible thereafter. Most population forecasts have assumed that no return to high net immigration rates may be expected.

As a basis for the cost estimates, two population projections have been developed. These do not reflect the maximum possible range

in population which might develop in the future, but rather embody combinations of factors which produce either low cost or high cost in regard to old-age and survivors insurance; for example, unfavorable mortality assumptions versus favorable ones. These population projections are presented in detail in Actuarial Study No. 33 of the Social Security Administration (Illustrative United States Population Projections, 1952).

Table 12 indicates the alternative trends of population growth resulting for the total population, for population aged 20-64, and for the population aged 65 and over. The high-cost projection shows a larger aged population than the low-cost projection because of the assumed lower mortality, but a somewhat smaller population in age groups under 65 because of the assumed lower fertility which more than offsets the lower mortality.

TABLE 12.—Actual and estimated population of the United States,¹ 1920-2000

[In millions]

Calendar year	All ages			Aged 20-64			Aged 65 and over		
	Total	Men	Women	Total	Men	Women	Total	Men	Women
Actual data									
1920 (April).....	108	55	53	58	30	28	5.0	2.5	2.5
1930 (April).....	125	64	62	69	35	34	6.7	3.4	3.3
1940 (April).....	135	68	67	79	39	39	9.0	4.4	4.6
1950 (April).....	155	77	78	89	44	45	12.3	5.8	6.5
1955 (July).....	169	84	85	93	46	47	14.2	6.6	7.6
Projection for low-cost assumptions									
1960.....	174	86	88	95	46	49	15.4	7.0	8.4
1965.....	181	90	91	99	49	50	16.9	7.6	9.3
1980.....	209	103	106	117	58	59	22.0	9.4	12.6
2000.....	248	123	125	139	70	69	25.8	11.0	14.8
Projection for high-cost assumptions									
1960.....	173	86	87	95	47	48	15.5	7.1	8.4
1965.....	178	88	90	99	49	50	17.1	7.7	9.4
1980.....	197	97	100	116	58	58	22.8	9.9	12.9
2000.....	216	108	108	128	64	64	28.0	12.2	15.8

¹ Includes—in addition to the continental United States—Alaska, Canal Zone, Hawaii, Puerto Rico, and Virgin Islands, and for 1950 and after, Armed Forces and Government employees overseas and their families. For 1940 and later, data for ages 55 to 69 adjusted for age biases in nonwhite population as enumerated.

(b) *Mortality.*—Mortality rates by age have been decreasing steadily since the turn of the century for both sexes and for virtually all ages up to age 60. Although there was relatively little change above that age during the first four decades, significant improvement has occurred during the past decade and a half.

In both the low-cost and high-cost assumptions, continued improvement in mortality rates at all ages is postulated. However, the degree of improvement embodied in the high-cost assumptions is substantially greater. While both sets of assumptions are necessarily arbitrary, they may reasonably be taken as delineating, for the purposes of this report, the range within which mortality rates will fall. If this range seems wide, it should be noted that no allowance has been made for the effects of such diverse factors as reduction in mortality through the application of new discoveries to the prevention of disease and to the impairments caused by disease and, on the other hand, the possibility that mortality rates at older ages might actually increase because more persons with serious impairments, such as diabetes, are enabled to survive to older ages.

(c) *Amount of covered employment.*—In estimating the number of covered persons, percentages of men and women in each age group who are in covered employment are developed through analysis of past wage data for the groups already covered, along with such data relating to the newly covered groups as can be obtained from censuses and other sources. The level of employment assumed is roughly that currently prevailing.

It is assumed that about 95 percent of all males in the country aged 25–34 have covered earnings in the course of a year, the ratio decreasing to about 75 percent for ages 60–64. For women the corresponding proportions are 45 percent for ages 25–34 and 25 percent for ages 60–64. Further, about 85 percent of covered men work in all 4 quarters, with somewhat lower proportions at the youngest and oldest ages. For women, the proportions used were about 55 percent for ages 20–35 and about 65 percent for ages 40 and over. It is assumed that in the future the proportion of women who will be in covered employment will gradually rise for each age group, since in recent years they have been participating more and more in covered employment.

(d) *Proportion of time in covered employment prior to qualification for benefits.*—The number of persons who gain protection through becoming either “fully insured” or “currently insured” under old-age and survivors insurance depends upon the volume and pattern of their work in covered employment and upon the amount of taxable earnings from such work. A discussion of the latter factor is presented subsequently in item (h).

Table 13 shows, at certain future dates, the estimated percentages of the population insured by reason of current or previous work experience, subdivided by sex and by age groups above and below 65. The percentages for age 65 and over include old-age beneficiaries (i. e., retired workers). Table 14 relates the old-age beneficiaries, and the total beneficiaries aged 65 and over actually drawing benefits, to the total aged population.

TABLE 13.—*Estimated proportion of the population insured under old-age and survivors insurance, 1965-2000*

[In percent]

Calendar year	Low-cost estimate		High-cost estimate	
	Ages 20-64	Ages 65 and over ¹	Ages 20-64	Ages 65 and over ¹
	Men			
1965.....	84	73	88	78
1980.....	87	86	91	90
2000.....	87	91	92	96
	Women ²			
1965.....	47	27	52	30
1980.....	51	39	57	45
2000.....	52	49	58	59

¹ Including old-age beneficiaries.² Excludes wives and widows of fully insured men except such wives and widows who are insured on the basis of their own employment.

NOTE.—The figures in this table are based on high-employment assumptions.

TABLE 14.—*Estimated proportion of population aged 65 and over receiving benefits, 1965-2000*

[In percent]

Calendar year	Men receiving benefits ¹	Women receiving benefits		
		Old-age benefits ²	Other benefits ³	Total
	Low-cost estimate			
1965.....	54	22	34	56
1980.....	67	34	38	71
2000.....	75	44	36	80
	High-cost estimate			
1965.....	64	26	36	63
1980.....	75	41	38	79
2000.....	84	56	33	89

¹ Consists almost entirely of old-age beneficiaries (retired insured workers).² Old-age beneficiaries are retired insured workers. Women qualified both for old-age and wife's, widow's, or parent's benefits are considered as old-age beneficiaries.³ Wives of old-age beneficiaries, and widows and dependent mothers of deceased insured workers, excluding women qualifying as old-age beneficiaries.

(e) *Marital status and family composition.*—Marital relationships by age have great significance for old-age and survivors insurance costs because the system provides benefits for aged wives and widows (and also for aged dependent husbands and widowers). A woman over 65 cannot draw both the old-age benefit based on her own earnings and a full wife's, widow's, or parent's benefit based on her husband's or child's earnings. Hence, it is necessary to consider both the marital status of the female covered workers and also the exits from this group because of marriage. A relatively large cost offset occurs on account of the provision which prohibits duplication of benefits. The experience to date is still extremely limited in this respect (in December 1954 about 79,500 such dual beneficiaries had smaller old-age benefits, and an unknown number had larger old-age benefits and thus did not receive the supplementary or survivor benefit). This factor will not reach its full magnitude until some 30 or 40 years hence, when current female workers in their twenties and thirties have attained the minimum retirement age.

Family composition data, indicating the proportion of individuals with children and the average number of children per family, also have great significance, because the system provides benefits for orphaned children and their widowed mothers. The future birthrate has an important role in this connection since it determines not only the total number of children, but also how they are divided up into families. The actual claims experience is valuable as a guide.

There must also be considered the factors resulting in termination of married status, divorce and mortality. The distribution of ages of husbands and wives also affects the cost estimates. Various studies have indicated that at almost all ages women have lower mortality rates than men and that the mortality rates of married persons are lower than those for all persons combined. In the cost estimates differential mortality by marital status has been considered in determining costs for the various types of benefits.

Beneficiaries aged 65 and over and their dependents are composed of a number of different categories. Table 15 shows the projected trends in the number of beneficiaries, distinguishing between old-age beneficiaries (retired workers), wives and dependent husbands of old-age beneficiaries, children of old-age beneficiaries, aged widows and dependent widowers of deceased insured individuals, and dependent parents of deceased insured workers who left no widows or children under age 18. It has been assumed that all retired persons eligible to receive old-age benefits based on their own earnings would apply for and receive these benefits even though they might be entitled to larger wife's, husband's, widow's, widower's, or parent's benefits (which instead would be paid as reduced supplementary amounts). This assumption is made because it is never to the individual's disadvantage and may be to his advantage to receive old-age benefits and reduced supplementary benefits of another category, rather than to receive solely the full benefits of the supplementary category.

TABLE 15.—*Estimated monthly beneficiaries¹ aged 65 and over and children of old-age beneficiaries, in current-payment status, 1965-2000*

[In thousands]

Calendar year	Old-age beneficiaries ²	Wives of old-age beneficiaries ³	Children of old-age beneficiaries	Aged widows ⁴	Dependent parents
Actual data for December					
1950.....	1,771	508	46	314	15
1951.....	2,278	647	68	384	19
1952.....	2,644	738	75	455	21
1953.....	3,222	888	90	541	24
1954.....	3,775	1,016	107	638	25
1955.....	4,474	1,192	122	701	25
Low-cost estimate					
1965.....	6,151	1,347	109	1,888	29
1980.....	10,598	1,743	175	3,072	35
2000.....	14,772	1,923	195	3,533	43
High-cost estimate					
1965.....	7,369	1,562	132	1,933	35
1980.....	12,736	1,892	180	3,109	47
2000.....	18,978	2,051	187	3,303	63

¹ For future estimates, persons qualifying both for old-age benefits and for wife's, widow's, husband's, widower's, or parent's benefits are shown as old-age beneficiaries. For actual data, such dual beneficiaries are shown under both categories (as of December 1954, about 80,000 such individuals).

² I. e., retired insured workers.

³ Including dependent husbands and also a small number of wives under age 65 with child beneficiaries in their care.

⁴ Including dependent widowers.

NOTE.—The estimated figures in this table are based on high-employment assumptions.

Although persons aged 65 and over make up the bulk of the prospective beneficiaries under the program, the young survivors, composed of orphaned children and widowed mothers, will receive a considerable amount of benefits. Table 16 lists these two groups separately.

The high-cost assumptions show, as expected, a larger number of old-age beneficiaries, and dependents thereof, than the low-cost assumptions (table 15). This is in part because of the assumed lower mortality rates which result in a greater number and proportion of aged persons, and in part because of the higher retirement rates assumed and the greater proportion of the population assumed to be insured as a result of the in-and-out movement between covered employment and noncovered employment or nonemployment. On the other hand, the lower mortality tends to have the opposite effect in regard to widows (table 15) and, despite the somewhat higher birth rates, in regard to young survivors (table 16); thus a smaller number of survivor beneficiaries is indicated under the high-cost assumptions than under the low-cost assumptions.

TABLE 16.—*Estimated younger survivor monthly beneficiaries in current-payment status, 1965-2000*

[In thousands]

Calendar year	Orphaned children	Widowed mothers
Actual data for December		
1950.....	653	169
1951.....	778	204
1952.....	864	229
1953.....	963	254
1954.....	1,054	272
1955.....	1,154	292
Low-cost estimate		
1965.....	1,449	457
1980.....	1,575	507
2000.....	1,805	572
High-cost estimate		
1965.....	1,480	554
1980.....	1,457	570
2000.....	1,361	543

NOTE.—The estimated figures in this table are based on high-employment assumptions.

Table 17 summarizes the previous discussion by showing illustrative numbers of beneficiaries and lump-sum death payments. Widows, widowers, and parents aged 65 and over are included under the aged category, as are also spouses and dependent children of old-age beneficiaries.

TABLE 17.—*Estimated old-age and survivors insurance beneficiaries in current-payment status, 1965-2000*

[In thousands]

Calendar year	Aged beneficiaries ¹	Younger survivors	Lump-sum death payments ²
Actual data for December			
1950.....	2,654	823	200
1951.....	3,397	982	414
1952.....	3,933	1,093	438
1953.....	4,764	1,217	512
1954.....	5,561	1,326	516
1955.....	6,515	1,464	567
Low-cost estimate			
1965.....	9,524	1,906	923
1980.....	15,623	2,082	1,309
2000.....	20,466	2,377	1,718
High-cost estimate			
1965.....	11,031	2,034	953
1980.....	17,964	2,027	1,342
2000.....	24,582	1,904	1,770

¹ Including children of old-age beneficiaries and wives under age 65 having such children in their care. For actual data, figures are somewhat overstated because of persons receiving both old-age benefits and wife's, widow's, or parent's benefits (about 80,000 individuals as of December 1954).

² Number of deaths resulting in lump-sum payments during the year.

NOTE.—The estimated figures in this table are based on high-employment assumptions.

¶ In tables 13 to 17 only potential long-range trends have been set down, without recognition of cyclical or periodic fluctuations. Bearing this in mind, certain trends may be observed in these illustrative tables of number of beneficiaries.

(1) An overall uptrend in beneficiaries under all types of benefits payable to persons aged 65 and over and their dependents;

(2) After 1960, a relatively small increase under the low-cost assumptions and a leveling off under the high-cost assumptions in the number of orphan-child and widowed-mother beneficiaries;

(3) The relatively small, and increasingly smaller, proportion of all benefits represented by younger survivor benefits;

(4) A relatively rapid advance in the proportion of fully insured persons aged 65 and over (including those drawing benefits) as compared with the rise in the proportion fully insured at ages 20-64; and

(5) A rapid rise in the percent of aged persons receiving old-age benefits.

(f) *Remarriage rates.*—Remarriage of “young widows” is an important cost factor since it results in termination of mother’s insurance benefits and also of rights to deferred widow’s benefits at age 65. The greatest potential duration of benefits occurs among the younger widows, who can receive benefits for many years as mothers of young children and later as aged widows. These, however, are also the women with the greatest chance of remarriage. Among the older mothers with fewer prospective years of benefit receipt (their youngest child being nearer age 18), the probability of remarriage is smaller.

Remarriage rates vary both by age of the widow and by duration of widowhood. The remarriage factor produces a tangible reduction in the volume of “life insurance” afforded by the program when such “life insurance” is interpreted as meaning the present value, in case of the worker’s death, of prospective benefit payments to his surviving dependents, after taking account of this reduction. It is estimated that at the beginning of 1955 the program provided about \$345 billion of such “life insurance” protection for survivors.

(g) *Employment of beneficiaries.*—Since monthly benefits for all categories of beneficiaries are, in effect, suspended in any month in which the beneficiary is under age 72 and has more earnings than permitted under the retirement test, assumptions as to the employment of beneficiaries rank high in importance among the various cost elements. In December 1954, 72 percent of those aged 65 and over who were fully insured were actually receiving benefits. The proportion is influenced to some extent by the favorable work opportunities for the aged now prevailing. In the future this proportion will probably increase somewhat, if for no other reason than the aging of the insured population.

Then, too, a large demand for labor draws into employment and away from benefit receipt many widowed mothers and older children. There is assumed to be more employment of beneficiaries, and thus savings in cost, in the low-cost assumptions than in the high-cost ones.

(h) *Earnings in covered employment.*—One of the most striking changes in earned income on record has taken place since 1940. Not only have there been further rises in the hourly rate of earnings since the end of World War II, including a sharp rise following the outbreak of the Korean conflict, but also unemployment, including partial

unemployment, has been relatively low so that most workers have had a full workweek (table 18).

TABLE 18—Average earnings credits of workers under old-age and survivors insurance by years, 1937-53

Calendar year	Workers with any earnings in year			Workers with earnings in all 4 calendar quarters		
	Total	Male	Female	Total	Male	Female
\$3,000 maximum earnings base						
1937.....	\$899	\$1,037	\$539	(1)	(1)	(1)
1938.....	832	958	507	\$1,211	\$1,359	\$783
1939.....	881	1,014	536	1,247	1,400	800
1940.....	926	1,070	553	1,305	1,465	831
1941.....	1,014	1,188	574	1,468	1,646	910
1942.....	1,127	1,364	609	1,703	1,939	1,047
1943.....	1,289	1,580	788	1,913	2,205	1,271
1944.....	1,379	1,681	887	1,996	2,301	1,402
1945.....	1,328	1,591	895	1,982	2,293	1,384
1946.....	1,394	1,635	929	2,031	2,269	1,480
1947.....	1,571	1,881	1,044	2,173	2,393	1,611
1948.....	1,677	1,939	1,138	2,281	2,493	1,733
1949.....	1,711	1,964	1,185	2,298	2,508	1,763
1950.....	1,769	2,026	1,232	2,376	2,579	1,852
\$3,600 maximum earnings base						
1951 total.....	\$2,041	\$2,398	\$1,333	(1)	(1)	(1)
1951 wage employment.....	1,997	2,357	1,319	\$2,665	\$2,966	\$1,945
1951 self-employment.....	2,278	2,356	1,745	(1)	(1)	(1)
1952 totals ²	2,110	2,470	1,420	(1)	(1)	(1)
1952 wage employment ²	2,070	2,440	1,400	2,740	3,040	2,060
1952 self-employment ²	2,330	2,450	1,740	(1)	(1)	(1)
1953 total ²	2,180	2,550	1,500	(1)	(1)	(1)
1953 wage employment ²	2,150	2,510	1,490	2,820	3,110	2,150
1953 self-employment ²	2,350	2,500	1,700	(1)	(1)	(1)
1954 total ²	2,200	2,550	1,500	(1)	(1)	(1)
1954 wage employment ²	2,150	2,500	1,500	2,850	3,100	2,200
1954 self-employment ²	2,400	2,500	1,700	(1)	(1)	(1)

¹ Data not available.
² Preliminary.

The higher earnings rate gives workers relatively more chance of obtaining credit for quarters of coverage (at \$50 of wages per quarter) now than in the prewar years, thus effecting an increase in number of persons with insured status and in the average wage used for benefit computations. These increases are assumed to be more or less permanent.

The cost assumptions involve average annual creditable earnings in perpetuity of \$3,485 for men who work in all 4 quarters of a year and, correspondingly, \$2,235 for women. For both men and women the average earnings used for 3-quarter workers is about 45 percent of that for 4-quarter workers (i. e., at a lower rate per quarter). Corresponding proportions for the 2-quarter and 1-quarter workers are about 22 and 9 percent, respectively. As used here, the reference to 4-quarter workers, 3-quarter workers, etc., relates only to the status in a particular year; the estimates allow for the fact that over the course of a working lifetime an individual may be in covered employment all 4 quarters of some years, fewer in other years, and perhaps not in covered employment at all in still other years. These ratios of the part-time average covered earnings to the 4-quarter average parallel very closely the actual ratios observed in the old-age and survivors earnings data.

The 4-quarter earnings assumptions may be compared with the actual experience for such workers in the past years as shown by the last two columns of table 18, but allowance must be made for the changes in the maximum wage base. The earnings assumptions are on about the level prevailing in 1954 and are about 30 to 35 percent above the experience in 1947, used as the basis for the estimates made for the 1950 amendments (after adjustment for change in the wage base), and about 10 percent above the 1951-52 level, used for the estimates for the 1954 amendments.

Development of the prospective cost of the program using the various elements discussed furnishes reasonable illustrations of the number of future beneficiaries and costs. The values derived are well within the outside boundaries of possibility, though by no means either the lowest or the highest conceivable. Experience to date is limited; the payment of monthly benefits began in 1940, and these benefits were revised drastically in 1950 and again moderately in 1952 and 1954. As payments got under way, limitations of coverage and the insured-status requirement excluded large numbers of potential beneficiaries. In recent years, as the lag diminished and coverage expanded, payments have been limited by postponements in the claiming of benefits occasioned by favorable employment conditions during the war and immediate postwar years. The long-range cost estimates look beyond these limitations and attempt to furnish some indication of the future trend in costs of the old-age and survivors insurance program.

It is to be noted that in addition to the assumptions already discussed, the long-range cost illustrations include assumptions relating to retirement rates, interest rate, and various miscellaneous administrative factors. Since the earlier cost estimates were developed, sufficient actual experience under the operation of the program is available to permit the introduction of various modifications to allow for such factors as the minimum and maximum provisions as to benefits, and the provision that the lump-sum death payment in certain instances may not exceed the actual burial expenses. Also taken into account are such miscellaneous factors as differential retirement rates by marital status and the effect of lowered earning capacity during last illness on the size of survivor benefits.

An important element affecting old-age and survivors insurance costs arose through amendments made to the Railroad Retirement Act in 1951. These extended the 1946 amendments and provide for a coordination of railroad retirement compensation and old-age and survivors insurance covered earnings in determining not only survivor benefits but also retirement benefits for those with less than 10 years of railroad service. All future survivor and retirement cases involving less than 10 years of railroad service are to be paid by the old-age and survivors insurance system.

Financial interchange provisions are established such that the old-age and survivors insurance trust fund is to be placed in the same financial position as if there never had been a separate railroad retirement program. It is estimated that, over the long range, the net effect of these provisions will be a relatively small gain to the old-age and survivors insurance system since the reimbursements from the railroad retirement system will be somewhat larger than the net additional benefits paid on the basis of railroad earnings. The long-range

costs developed here are for the operation of the trust fund on the basis, provided in current law, that all railroad employment will be (and beginning with 1937 has been) covered employment. The balance in the fund thus corresponds exactly to the actual situation. But the contribution income and benefit disbursement figures shown (as well as the number of beneficiaries) are roughly 5 percent higher than the payments which will actually be made directly to the trust fund from contributors and the payments which will actually be made from the trust fund to the individual beneficiaries. This is the case because the figures here include both the additional contributions which would have been collected if railroad employment had always been covered and the additional benefits that would have been paid under such circumstances. The balance for these two elements is to be accounted for in actual practice by the operation of the financial interchange provisions.

The long-range cost estimates of income and outgo were presented in the body of the report in tables 10 and 11, the former showing the benefit cost relative to payroll and the latter the progress of the trust fund. In addition to the figures for the low-cost and high-cost estimates, resulting from two carefully considered series of assumptions, intermediate-cost estimates have been developed. The latter are merely an average of the low-cost and high-cost estimates of beneficiaries, disbursements, and income of the trust fund; they are not intended to represent "most probable" figures. Rather, they have been set down as a convenient and readily available single set of figures to be used for comparative purposes.

Since the Congress has adopted the principle of establishing in the law a contribution schedule designed to make the system self-supporting, it was necessary at the time the legislation was enacted to select a single set of estimates as the basis for the contribution schedule. The intermediate-cost estimate was used for this purpose. Quite obviously any specific schedule may require modification in the light of future experience, but the establishment of the schedule in the law does make clear the congressional intent that the system be self-supporting. Exact self-support cannot be obtained from a specific set of integral or rounded fractional rates, but the intention to adhere as closely as possible to this principle of self-support was clearly expressed by the Congress in 1950 when it developed the tax schedule in the law, and again in 1952 and 1954 when further amendments were made.

The Congress considered the matter of costs in the legislative development of the 1954 amendments—especially in the light of the new estimates for the 1952 act which showed somewhat higher costs than previously estimated. Part of this higher cost was recognized in the 1954 act, as was all of the increased cost of the changes made (over the savings effected by such changes as extension of coverage and the higher wage base). Accordingly, it may be said that in the 1954 act the increase in the ultimate contribution rate met all of the additional costs of the benefits provided and a substantial part of the deficiency in the financing of the 1952 act, which the latest estimates indicated. The revised estimates presented in this report indicate that such deficiency is even smaller than shown by the original estimates for the 1954 act.

Tables 10 and 11 show the steady rise in benefit payments under the widely different sets of conditions discussed earlier in this section,

and demonstrate the large increases, relatively and in absolute quantities, which would occur even after 1980, particularly under the high-cost assumptions.

Because of the nature of the assumptions, the tables show only smooth trends, omitting the irregularities and periodic cyclical variations which may develop. These irregularities are expected to be far more pronounced in regard to contributions than benefits since, after the system is well established, the dollar amount of the benefit roll will contain a large proportion of fixed payments to permanently retired persons. However, the payroll of covered workers from which the contribution income is derived will react quite sensitively to increases or decreases in job opportunities, changes in the length of the workweek, and changes in unit rates of pay. For demographic reasons alone, as discussed earlier, it is unlikely that the system would level out, even eventually, to a completely fixed relationship between contributions and benefits.

Table 10 compares benefit costs related to payroll for the present estimate. The cost rises steadily under both estimates—leveling out somewhat between 1990 and 2000. The “ultimate” cost is reached some 20 or 25 years after the year 2000 at roughly 8 percent of payroll for the low-cost estimate, 12 percent for the high-cost estimate, and 10 percent for the intermediate-cost estimate.

The interest assumptions used in determining level-premium costs are 2½, 2.4, and 2½ percent. The average rate on investments of the trust fund is currently about 2.3 percent (as of the end of 1955). The intermediate-cost estimate shows a level-premium cost of 7.63 percent of payroll at 2½-percent interest, 7.51 percent of payroll at 2.4 percent interest, and 7.44 percent at 2½-percent interest. These figures may be contrasted with the level rate equivalent to the graded contribution schedule in the law (taking into account the lower contributions payable by the self-employed as compared with the combined employer-employee rate), which is about 7.3 percent of payroll. Thus, this comparison indicates that according to these intermediate-cost figures, the tax schedule in the law is not quite self-supporting.

Table 11 shows the progress of the trust fund under the present estimates. In the low-cost estimate, contribution income exceeds benefit disbursements in all years. Accordingly, the trust fund builds up quite rapidly and even some 45 years hence is growing at the rate of almost \$6 billion per year (and at that time is about \$190 billion). On the other hand, under the corresponding high-cost estimate, benefit disbursements exceed contribution income in and after 1980, and the trust fund, after building up to a maximum of about \$45 billion in 1983, decreases thereafter until it becomes exhausted shortly after the year 2000.

These results for the low-cost and high-cost estimates are to be expected since the system on an intermediate-cost estimate is approximately self-supporting. Accordingly, a low-cost estimate should show that the system is more than self-supporting and a high-cost estimate should show that a deficiency will arise in later years. At any rate, it appears likely that there will be ample funds for several decades even with relatively unfavorable experience.

According to the intermediate-cost estimate, contribution income will exceed benefit disbursements until 1986. Accordingly, the trust fund grows steadily, reaching a maximum of about \$121 billion in 2015

and then declines slowly. This decrease is another indication that the tax schedule in the law is not quite self-supporting under the intermediate-cost estimate.

A factor mentioned earlier, but not used in the actuarial projections, is the trend observed in the past, of an irregular but upward movement in earnings, both on a dollar basis and in the form of real wages. If this secular trend continues, then—other things being equal and with no changes in the present provisions of the law—the curves of both benefits and contributions would be more steeply ascending than shown. The upward changes in the contribution curves, however, would be far more accentuated than would be such changes in the benefit curves. There are several reasons for this effect, the important one being that the benefit increase would be dampened because—

(1) Benefits are determined by the average monthly wage up to the maximum of \$350; 55 percent is applied to the first \$110 thereof and 20 percent to the part above \$110. As average earnings increase and more persons approach or reach the \$350 maximum, a larger portion of such earnings falls in that bracket of the benefit formula to which the 20-percent rather than the 55-percent rate applies. Thus benefits are smaller in relation to earnings, and consequently in relation to contributions.

(2) Contributions in any year are based substantially on the covered earnings of that year. Benefits in force in any year are based on weighted composite earnings of all previous years in which the insured persons on whose account the benefits are paid worked in covered employment, and in far distant future years would include earnings of as much as 50 previous years.

The assumption of steadily rising earnings in conjunction with an unamended benefit formula would have an important bearing in considering the long-range cost of the program. With such an assumption, the future rise in earnings would seem to offer significant financial help in the financing of benefits because contributions at a fixed percentage rate would increase steadily relative to benefit disbursement. However, benefits paid would steadily diminish in relation to the current earnings level. As a result, offsetting this apparent savings in cost is the likelihood that from the long-range point of view the present benefit formula would not be maintained.

In revising the benefit schedule to conform with the altered earnings level, the changed cost and contribution picture would have to be considered. This is especially true for changes resulting from the fact that benefits would be based on earnings prevailing at the time of the revision and thereafter, while the accumulated trust fund at that time would have developed from contributions on the lower earnings levels of the past. The fund thus would play a less important role in financing the program than it would if the earnings level had not changed. If it is assumed that the benefit level in the future will be adjusted in proportion to the increase in average earnings, the level-premium cost of the program, expressed as a percentage of taxable earnings in perpetuity, would be increased because of the diminishing part played by the accumulated trust fund in financing the program. For small annual rates of increase in average earnings (i. e., for rates less than the assumed valuation interest rate) this increase in cost may be partially counterbalanced by the time lag which would undoubtedly occur between the rise in earnings level

and the amendment of the benefit provisions. However, for larger rates of increase in average earnings the level-premium cost in perpetuity would be the ultimate cost, because the fund would ultimately play virtually no role in the financing of the benefits. Nevertheless, during the course of this century at least, the interest income from the fund would continue to be a significant amount in relation to total disbursements.

In addition to excluding the assumption of increasing wages in the future, the detailed cost estimates given have avoided dealing with various other important secular trends. These have diverse effects on costs which cannot be adequately extrapolated into the future. One illustration is the lengthening of the period of childhood or preparation for work. Another possibility is a drastic change in the average age of retirement, either to a considerably lower effective age so that practically all persons would retire at the minimum age of 65, or conversely to a higher effective age, under circumstances of greatly improved health conditions combined with good employment opportunities, such that few would retire before age 72 (after which, in any event, benefits are paid regardless of employment).

APPENDIX II. LEGISLATIVE HISTORY AFFECTING TRUST FUND

Contribution rates.—The Social Security Act of 1935 fixed the contribution rates for employees and their employers at 1 percent each on taxable wages for the calendar years 1937–39, and provided for higher rates thereafter. However, subsequent acts of Congress extended the 1-percent rates through calendar year 1949. On January 1, 1950, the rates rose to 1½ percent each for employees and employers, in accordance with the provisions of the Social Security Act Amendments of 1947. The Social Security Act Amendments of 1950 provided that the 1½-percent rates should remain in effect through calendar year 1953. Beginning January 1, 1951—the effective date of extension of coverage to self-employed persons—the rates of tax on self-employment income have been equal to 1½ times the corresponding employee rates.

Special refunds of employee contributions.—With respect to wages paid before 1951, refunds to employees who worked for more than one employer during the course of a year and paid contributions on such wages in excess of the statutory maximum, were made from general revenues. With respect to wages paid after 1950, these refunds are paid from the Treasury account for refunding internal-revenue collections. The Social Security Act Amendments of 1950 direct the managing trustee to pay from time to time from the trust fund into the Treasury as repayments to the account for refunding internal-revenue collections, the amount estimated by him to be contributions which are subject to refund with respect to wages paid after 1950.

Credits for military service.—The Social Security Act Amendments of 1946 added section 210 to the Social Security Act. This section provided survivor-insurance protection to certain World War II veterans for a period of 3 years following their discharge from the Armed Forces. Section 210 (d) authorized Federal appropriations to reimburse the Federal old-age and survivors insurance trust fund for such sums as were withdrawn to meet the additional cost (including

administrative expenses) of the payments under this section. The 1950 amendments, which provided additional benefits for World War II veterans, and the 1952, 1953, and 1955 amendments, which provided additional benefits on account of active military or naval service from July 25, 1947, through March 31, 1956, charged to the trust fund not only these additional benefits but also those payable under the 1946 amendments (beginning September 1950).

*Social Security Act Amendments of 1950.*¹—The 1950 amendments to the Social Security Act, which represented the first major legislative changes in the old-age and survivors insurance program since enactment of the 1939 amendments, became law August 28, 1950.

The more important changes significant from an actuarial standpoint are presented below.

1. Coverage was extended compulsorily to regularly employed domestic and farm employees; most Federal employees not covered under the civil service retirement program; the nonfarm self-employed other than doctors, lawyers, engineers, and members of certain other professional groups; employees and the self-employed in Puerto Rico and the Virgin Islands; and a few other small occupational classes. In addition, two categories of employees were given the opportunity to be covered on a voluntary basis—employees of nonprofit institutions and employees of State and local governments who are not under retirement systems.

2. Benefits were made payable in certain circumstances in which no benefits would formerly have been paid.

(a) The requirements for fully insured status were liberalized by introducing a new starting date for determining such status. This "new start" enabled many persons at least 65 years of age who did not meet the former requirements to become immediately eligible to receive retirement benefits. It also removed the disadvantage the newly covered groups would otherwise have faced in acquiring eligibility.

(b) Provisions defining dependency were modified to permit the payment of survivor benefits to all unmarried children under 18 years of age whose mothers were currently insured at time of death.

(c) Several new benefits for dependents and survivors of insured persons were added. Benefits equal to 50 percent of the primary insurance amount are payable to a wife, under 65 years of age, of an old-age (primary) beneficiary as long as she has in her care a child entitled to benefits on her husband's earnings. In certain instances benefits are payable to the dependent husband, aged 65 or over, of a retired female beneficiary, and also to the aged surviving dependent widower of a deceased woman worker. Husband's and widower's benefits are equal to 50 and 75 percent, respectively, of the primary insurance amount.

(d) The provisions governing the withholding of benefits because of work in covered employment were liberalized. Eligible persons at least 75 years of age could receive benefits regardless of the amount of their earnings in covered employment. Those under 75 years of age might earn as much as \$50 a month in covered employment and still receive benefits.

¹ Certain provisions in these amendments were further changed in 1952 and/or 1954.

(e) Lump-sum death benefits were made payable even though monthly benefits were payable to survivors for the month in which the wage earner died.

(f) Monthly benefits were made payable retroactively for a period up to 6 months prior to the month in which an application was filed provided the beneficiary was eligible therefor.

3. Larger benefits were made payable to future beneficiaries as well as to persons on the rolls.

(a) The maximum amount of annual taxable earnings was raised to \$3,600.

(b) For persons having at least six quarters of coverage after 1950, the average monthly wage might be calculated over all years after 1936 or after 1950, whichever yielded the larger primary insurance amount, except that in the case of individuals born after 1928, the 1950 starting date was required.

(c) For persons whose average monthly wage was calculated on the basis of earnings after 1950, the monthly primary insurance amount was 50 percent of the first \$100 of average monthly wage, plus 15 percent of the next \$200. The minimum primary insurance amount ranged from \$25 for persons with average monthly wages between \$35 and \$50, down to \$20 for persons with average monthly wages below \$31.

(d) For persons already on the beneficiary rolls, benefits were increased by means of a conversion table contained in the new amendments. Where the wage earner lacks six quarters of coverage after 1950, benefits to future beneficiaries will be based on an average monthly wage computed over all years after 1936. In all cases where the average monthly wage is computed over all years after 1936, including cases referred to in subparagraph (b) above, benefits will be computed by the old formula, except that no 1-percent increment will be included for years after 1950. The amounts so computed would then be increased by means of the conversion table.

(e) Parent's benefits were increased to 75 percent of the primary insurance amount. Child-survivor benefits were increased so as to pay to each child the sum of (1) 50 percent of the primary insurance amount, and (2) 25 percent of the primary insurance amount, divided by the number of child beneficiaries in the family. The amount of the lump-sum death payment was changed from 6 times the primary insurance benefit to 3 times the primary insurance amount.

(f) The maximum monthly amount of family benefits payable with respect to one wage record was the smaller of \$150 or 80 percent of the average monthly wage, provided that the latter limit would not reduce benefits below \$40.

4. The provision which was added to the Social Security Act in 1943 authorizing appropriations to the trust fund from general revenues when needed to meet costs was eliminated.

*Social Security Act amendments of 1952.*²—The 1952 amendments to the Social Security Act became law July 18, 1952. The important changes significant from an actuarial standpoint are presented below:

1. Larger benefits were made payable to beneficiary families on the rolls as well as to virtually all future beneficiary families.

(a) For persons with an average monthly wage calculated on the basis of earnings after 1950, the monthly primary insurance amount

² Certain provisions in these amendments were further changed in 1954.

was 55 percent of the first \$100 of average monthly wage, plus 15 percent of the next \$200. The minimum primary insurance amount was made \$25 for persons whose average monthly wage was under \$35, and \$26 for persons with average monthly wages from \$35 to \$47.

(b) For persons already on the beneficiary rolls whose benefits were determined by the conversion table, benefits were increased by the use of a new conversion table in which all primary insurance amounts in the table of the 1950 law were increased by \$5 or 12½ percent, whichever was larger. This new conversion table would be applicable in determining benefits for all future beneficiaries whose average monthly wage was computed over all years since 1936.

(c) The maximum monthly amount of family benefits payable with respect to one wage record was the smaller of \$168.75 or 80 percent of the average monthly wage, provided that the latter limit would not reduce benefits below \$45.

2. The provision governing the withholding of benefits because of work in covered employment was liberalized. The amount which eligible persons under age 75 might earn in covered employment and still receive benefits was increased to \$75 a month.

Social Security Amendments of 1954.—A summary of the provisions affecting receipts and disbursements of the trust fund appears on pages 2-4.

Coordination of old-age and survivors insurance and railroad retirement programs.—Public Law 234, approved October 30, 1951, amended the Railroad Retirement Act to provide a new basis of coordinating the railroad retirement program with old-age and survivors insurance. This legislation provides that the railroad wage credits of workers who die or retire with less than 10 years of railroad employment shall be transferred to the old-age and survivors insurance system. The situation will be unchanged for workers who acquire 10 years or more of railroad service. That is, the survivors of over-10-year railroad workers will, as under the 1946 amendments to the Railroad Retirement Act, receive benefits under one program or the other based on combined wage records, while retirement benefits will be payable under both systems to individuals with 10 or more years of railroad service who also qualify under old-age and survivors insurance.

With respect to the allocation of costs between the two systems, Public Law 234 required the Railroad Retirement Board and the Secretary of Health, Education, and Welfare to—

determine, no later than January 1, 1954, the amount which would place the Federal old-age and survivors insurance trust fund in the same position in which it would have been at the close of the fiscal year ending June 30, 1952, if service as an employee after December 31, 1936, had been included in the term "employment" as defined in the Social Security Act and in the Federal Insurance Contributions Act.

Both agencies completed a series of joint actuarial studies and analyses required by this provision. The results showed that the addition of \$488 million to the old-age and survivors insurance trust fund would place it in the same position as of June 30, 1952, as it would have been if railroad employment had always been covered under the Social Security Act.

There is no authority in the law to transfer the \$488 million from the railroad retirement account to the trust fund, but the legislation provides that beginning with fiscal year 1953, and for each fiscal year thereafter, annual interest payments on this amount (less any offsets

described below) are to be transferred from the railroad retirement account to the trust fund.

The legislation further provides that at the close of fiscal year 1953, and each fiscal year thereafter, annual reimbursements are to be effected between the railroad retirement account and the trust fund in such amounts as would, taking into consideration the amount determined for the period through June 30, 1952, place the trust fund at the end of the year in the same position in which it would have been if railroad employment were covered under the Social Security Act. If the reimbursement is from the trust fund to the railroad retirement account the Secretary of Health, Education, and Welfare may offset the amount of such reimbursement against the amount determined for the period through June 30, 1952.

Change in definition of "employee."—Public Law 642, approved June 14, 1948, which amended the definition of the term "employee" as used in the Social Security Act, resulted in the exclusion from coverage of certain services previously held covered. While the amended definition was made retroactive to 1937, certain wage credits established under the former definition will remain credited to the individual's account. The law authorizes an appropriation to the trust fund from general revenues equal to the estimated total amount of benefits paid and to be paid that would not have been paid had the amended definition been in effect beginning in 1937.

Authorization for construction of office building.—With the passage of Public Law 195, approved August 1, 1955, a total of \$25,370,000 was authorized in expenditures from the trust fund for construction of an office building and related facilities for the Bureau of Old-Age and Survivors Insurance.

APPENDIX III. STATUTORY PROVISIONS CREATING THE TRUST FUND AND DEFINING THE DUTIES OF THE BOARD OF TRUSTEES

(Secs. 201 and 218 (e), (h), and (j) of the Social Security Act as amended)

Federal Old-Age and Survivors Insurance Trust Fund

SECTION 201. (a) There is hereby created on the books of the Treasury of the United States a trust fund to be known as the "Federal Old-Age and Survivors Insurance Trust Fund" (hereinafter in this title called the "Trust Fund"). The Trust Fund shall consist of the securities held by the Secretary of the Treasury for the Old-Age Reserve Account and the amount standing to the credit of the Old-Age Reserve Account on the books of the Treasury on January 1, 1940, which securities and amount the Secretary of the Treasury is authorized and directed to transfer to the Trust Fund, and, in addition, such amounts as may be appropriated to, or deposited in, the Trust Fund as hereinafter provided. There is hereby appropriated to the Trust Fund for the fiscal year ending June 30, 1941, and for each fiscal year thereafter, out of any moneys in the Treasury not otherwise appropriated, amounts equivalent to 100 per centum of—

(1) the taxes (including interest, penalties, and additions to the taxes) received under subchapter A of chapter 9 of the Internal Revenue Code of 1939 (and covered into the Treasury) which are deposited into the Treasury by directors of internal revenue before January 1, 1951; and

(2) the taxes certified each month by the Commissioner of Internal Revenue as taxes received under subchapter A of chapter 9 of such code which are deposited into the Treasury by directors of internal revenue after December 31, 1950, and before January 1, 1953, with respect to assessments of such taxes made before January 1, 1951; and

(3) the taxes imposed by subchapter A of chapter 9 of such code with respect to wages (as defined in section 1426 of such code), and by chapter 21 of the Internal Revenue Code of 1954 with respect to wages (as defined in section 3121 of such code) reported to the Commissioner of Internal Revenue pursuant to section 1420 (c) of the Internal Revenue Code of 1939 after December 31, 1950, or pursuant to sections 6011 (a), 6071, 6081 (a), 6091 (a), 6302 (b) of the Internal Revenue Code of 1954 after December 31, 1954, as determined by the Secretary of the Treasury by applying the applicable rates of tax under such subchapter or chapter 1 to such wages, which wages shall be certified by the Secretary of Health, Education, and Welfare on the basis of the records of wages established and maintained by such Secretary in accordance with such reports; and

(4) the taxes imposed by subchapter E of chapter 1 of the Internal Revenue Code of 1939, with respect to self-employment income (as defined in section 481 of such code), and by chapter 2 of the Internal Revenue Code of 1954 with respect to self-employment income (as defined in section 1402 of such code) reported to the Commissioner of Internal Revenue on tax returns under such subchapter or chapter, as determined by the Secretary of the Treasury by applying the applicable rate of tax under such subchapter or chapter to such self-employment income, which self-employment income shall be certified by the Secretary of Health, Education, and Welfare on the basis of the records of self-employment income established and maintained by the Secretary of Health, Education, and Welfare in accordance with such returns.

The amounts appropriated by clauses (3) and (4) shall be transferred from time to time from the general fund in the Treasury to the Trust Fund on the basis of estimates by the Secretary of the Treasury of the taxes, referred to in clauses (3) and (4), paid to or deposited into the Treasury; and proper adjustments shall be made in amounts subsequently transferred to the extent prior estimates were in excess of or were less than the amounts of the taxes referred to in such clauses.

(b) There is hereby created a body to be known as the Board of Trustees of the Federal Old-Age and Survivors Insurance Trust Fund (hereinafter in this title called the "Board of Trustees") which Board of Trustees shall be composed of the Secretary of the Treasury, the Secretary of Labor, and the Secretary of Health, Education, and Welfare, all ex officio. The Secretary of the Treasury shall be the Managing Trustee of the Board of Trustees (hereinafter in this title called the "Managing Trustee"). The Commissioner of Social Security shall serve as Secretary of the Board of Trustees. It shall be the duty of the Board of Trustees to—

(1) Hold the Trust Fund;

(2) Report to the Congress not later than the first day of March of each year on the operation and status of the Trust

Fund during the preceding fiscal year and on its expected operation and status during the next ensuing five fiscal years;

(3) Report immediately to the Congress whenever the Board of Trustees is of the opinion that during the ensuing five fiscal years the Trust Fund will exceed three times the highest annual expenditures anticipated during that five-fiscal-year period, and whenever the Board of Trustees is of the opinion that the amount of the Trust Fund is unduly small; and

(4) Recommend improvements in administrative procedures and policies designed to effectuate the proper coordination of the old-age and survivor's insurance and Federal-State unemployment compensation program.

The report provided for in paragraph (2) above shall include a statement of the assets of, and the disbursements made from, the Trust Fund during the preceding fiscal year, an estimate of the expected future income to, and disbursements to be made from, the Trust Fund during each of the next ensuing five fiscal years, and a statement of the actuarial status of the Trust Fund. Such report shall be printed as a House document of the session of the Congress to which the report is made.

(c) It shall be the duty of the Managing Trustee to invest such portion of the Trust Fund as is not, in his judgment, required to meet current withdrawals. Such investments may be made only in interest-bearing obligations of the United States or in obligations guaranteed as to both principal and interest by the United States. For such purpose such obligations may be acquired (1) on original issue at par, or (2) by purchase of outstanding obligations at the market price. The purposes for which obligations of the United States may be issued under the Second Liberty Bond Act, as amended, are hereby extended to authorize the issuance at par of special obligations exclusively to the Trust Fund. Such special obligations shall bear interest at a rate equal to the average rate of interest, computed as to the end of the calendar month next preceding the date of such issue, borne by all interest-bearing obligations of the United States then forming a part of the Public Debt; except that where such average rate is not a multiple of one-eighth of 1 per centum, the rate of interest of such special obligations shall be the multiple of one-eighth of 1 per centum next lower than such average rate. Such special obligations shall be issued only if the Managing Trustee determines that the purchase of other interest-bearing obligations of the United States, or of obligations guaranteed as to both principal and interest by the United States on original issue or at the market price, is not in the public interest.

(d) Any obligations acquired by the Trust Fund (except special obligations issued exclusively to the Trust Fund) may be sold by the Managing Trustee at the market price, and such special obligations may be redeemed at par plus accrued interest.

(e) The interest on, and the proceeds from the sale or redemption of, any obligations held in the Trust Fund shall be credited to and form a part of the Trust Fund.

(f) (1) The Managing Trustee is directed to pay from the Trust Fund into the Treasury the amount estimated by him and the Secretary of Health, Education, and Welfare which will be expended during a three-month period by the Department of Health, Education, and Welfare and the Treasury Department for the administration of

titles II and VIII of this Act and subchapter E of chapter 1 and subchapter A of chapter 9 of the Internal Revenue Code of 1939, and chapters 2 and 21 of the Internal Revenue Code of 1954. Such payments shall be covered into the Treasury as repayments to the account for reimbursement of expenses incurred in connection with the administration of titles II and VIII of this Act and subchapter E of chapter 1 and subchapter A of chapter 9 of the Internal Revenue Code of 1939, and chapters 2 and 21 of the Internal Revenue Code of 1954.

(2) The Managing Trustee is directed to pay from time to time from the Trust Fund into the Treasury the amount estimated by him as taxes which are subject to refund under section 1401 (d) of the Internal Revenue Code of 1939 with respect to wages (as defined in section 1426 of such code) paid after December 31, 1950, and prior to January 1, 1955, and under section 6413 (c) of the Internal Revenue Code of 1954 with respect to wages as defined in section 3121 of such Code, paid after December 31, 1954. Such taxes shall be determined on the basis of the records of wages established and maintained by the Secretary of Health, Education, and Welfare in accordance with the wages reported to the Commissioner of Internal Revenue pursuant to section 1420 (c) of the Internal Revenue Code of 1939 and sections 6011 (a), 6071, 6081 (a), 6091 (a), and 6302 (b) of the Internal Revenue Code of 1954, and the Secretary shall furnish the Managing Trustee such information as may be required by the Trustee for such purpose. The payments by the Managing Trustee shall be covered into the Treasury as repayments to the account for refunding internal revenue collections.

(3) Repayments made under paragraph (1) or (2) shall not be available for expenditures but shall be carried to the surplus fund of the Treasury. If it subsequently appears that the estimates under either such paragraph in any particular period were too high or too low, appropriate adjustments shall be made by the Managing Trustee in future payments.

(g) All amounts credited to the Trust Fund shall be available for making payments required under this title.

Payments and Reports by States

SECTION 218. (c) Each agreement under this section shall provide—

(1) that the State will pay to the Secretary of the Treasury, at such time or times as the Secretary of Health, Education, and Welfare may by regulations prescribe, amounts equivalent to the sum of the taxes which would be imposed by sections 3101 and 3111 of the International Revenue Code of 1954 if the services of employees covered by the agreement constituted employment as defined in section 3121 of such code; and

(2) that the State will comply with such regulations relating to payments and reports as the Secretary of Health, Education, and Welfare may prescribe to carry out the purposes of this section.

Deposits in Trust Fund; Adjustments

SECTION 218. (h) (1) All amounts received by the Secretary of the Treasury under an agreement made pursuant to this section shall be deposited in the Trust Fund.

(2) If more or less than the correct amount due under an agreement made pursuant to this section is paid with respect to any payment of remuneration, proper adjustments with respect to the amounts due under such agreement shall be made, without interest, in such manner and at such times as may be prescribed by regulations of the Secretary of Health, Education, and Welfare.

(3) If an overpayment cannot be adjusted under paragraph (2), the amount thereof and the time or times it is to be paid shall be certified by the Secretary of Health, Education, and Welfare to the Managing Trustee, and the Managing Trustee, through the Fiscal Service of the Treasury Department and prior to any action thereon by the General Accounting Office, shall make payment in accordance with such certification. The Managing Trustee shall not be held personally liable for any payment or payments made in accordance with a certification by the Secretary of Health, Education, and Welfare.

Failure To Make Payments

SECTION 218. (j) In case any State does not make, at the time or times due, the payments provided for under an agreement pursuant to this section, there shall be added, as part of the amounts due, interest at the rate of 6 per centum per annum from the date due until paid, and the Secretary of Health, Education, and Welfare may, in his discretion, deduct such amounts plus interest from any amounts certified by him to the Secretary of the Treasury for payment to such State under any other provision of this Act. Amounts so deducted shall be deemed to have been paid to the State under such other provision of this Act. Amounts equal to the amounts deducted under this subsection are hereby appropriated to the Trust Fund.

